

Jean-Yves CHENARD et al.  
Serial No. 273,669

190. The method of claim 184, wherein the mercapto alkanol ester of a monocarboxylic acid is selected from the group consisting of mercapto ethyl stearate, 3-tyio-glyceryl myristate, mercapto ethyl palmitate, and mercapto ethyl myristate.

191. The method of claim 184, wherein the vinyl halide resin is polyvinyl chloride. *HA*

REMARKS

I. INTRODUCTION

This application is a continuation application of U.S. Patent Application Serial No. 254,313 filed April 15, 1981 (parent application), which is a continuation-in-part application of U.S. Patent Application Serial No. 70,503 filed August 28, 1979, now abandoned (the grandparent application). The U.S. patent applications claim priority under 35 U.S.C. § 119 upon French Patent Application No. 78 24863 filed August 29, 1978 (the French priority application).

Claims 59-62 and 64-69 of the parent application were rejected by the Board of Patent Appeals and Interferences in a decision dated June 25, 1987. A new rejection of claims 63-70 was entered by the Examiner in an Office Action of December 30, 1987.

In the present application, Applicants have cancelled claims 59-70 and presented new claims 71-191 that Applicants contend are patentable over the prior art.

Jean-Yves CHENARD et al.  
Serial No. 273,669

## II. CLAIM AMENDMENTS

Applicants have drafted claims 71-191 so as to have an effective filing date of August 29, 1978. As explained below in Section IV, in accordance with 35 U.S.C. §§ 112, 119 & 120, these claims are supported by the French priority application and the parent and grandparent applications.

Claims 71-148 concern related subject matter. Claims 71-84 define a composition comprising (a) a mono- or diorganotin compound wherein at least one atom bonded to tin is sulfur and (b) a mercapto alkanol ester of a monocarboxylic acid. Claims 85-101 define a vinyl halide resin composition comprising a vinyl halide resin and a mono- or diorganotin compound and a mercapto alkanol ester. Claims 102-118 relate to a composition comprising a product produced by mixing the mono- or diorganotin compound and the mercapto alkanol ester. Claims 119-148 are directed to methods of stabilizing a vinyl halide resin using the mono- or diorganotin compound and the mercapto alkanol ester.

Claims 149-191 concern related subject matter. These claims define a composition comprising and a method using (a) a mono- or diorganotin compound wherein at least one atom bonded to tin is a halogen and (b) a mercapto alkanol ester of a monocarboxylic acid. These claims are similar to claims 71-148 except that at least one atom bonded to tin in the organotin is a halogen instead of a sulfur.

Jean-Yves CHENARD et al.  
Serial No. 273,669

### III. THE BOARD'S DECISION

In the parent application, the Board affirmed the Examiner's rejection of claims 59-62 and 64-69 under 35 U.S.C. § 102 (e) as anticipated by Japanese Kokai 55-160,044 published December 12, 1980 (Japanese '044), Japanese Kokai 56-2336 published January 12, 1981 (Japanese '336), and U.S. Patent No. 4,360,619 to Kugele et al., which issued on November 23, 1982 on an application filed February 26, 1981. The Board concluded that claims 59-62 and 64-69 were not entitled under §§ 119 & 120 to either the French priority date (August 29, 1978) or the U.S. filing date (August 28, 1979) of the grandparent application. Rather, the Board limited the effective filing date of these claims to the filing date (April 15, 1981) of the parent application (Ser. No. 254,313). The Board found unconvincing Applicants' attempts to antedate the Japanese references and Kugele et al. by Declarations under 37 C.F.R. § 1.131 and found that the Japanese references and Kugele et al. were prior art with respect to claims 59-62 and 64-69.

The Board upheld the rejection of claims 59-62 and 64-69 under 35 U.S.C. § 103 as obvious over U.S. Patent No. 4,021,407 to Gough in view of U.S. Patent No. 3,167,527 to Hechenbleikner. The Board noted that Gough discloses an organotin borate and a mercapto ester. In view of Hechenbleikner, the Board asserted it would have been obvious to use an organotin stabilizer containing

Jean-Yves CHENARD et al.  
Serial No. 273,669

sulfur for the organotin borate. The Board also rejected claims 59-62 and 64-69 under § 102 as anticipated by Hechenbleikner.

Claims 59 and 62 were rejected by the Board under § 102 as anticipated by U.S. Patent No. 2,707,178 to Wilson. The Board rejected claims 59-62 and 64-69 under § 103 as obvious over Wilson with Hechenbleikner.

Under 37 C.F.R. § 1.196(d), the Board recommended that claims 63 and 70, which the Examiner had indicated to be allowable, be withdrawn from issuance and rejected. The Examiner subsequently rejected claims 63-70 under § 102(e) & (g) over U.S. Patent No. 4,576,984 to Bresser et al.<sup>1/</sup> The Examiner advised Applicants to copy claims from Bresser for purposes of an interference.

#### IV. EFFECTIVE U.S. FILING AND PRIORITY DATES OF CLAIMS 71-191

The grandparent application (Ser. No. 72,503) and French priority application provide § 112 support for claims 71-191 so that these claims are entitled to an effective U.S. filing date of at least as early as August 28, 1979 and a foreign priority date of August 29, 1978. A certified English language

---

<sup>1/</sup> Bresser et al. issued on an application filed January 10, 1984, which was a continuation of an application filed February 2, 1982, which was a continuation-in-part of an application filed February 26, 1981.

Jean-Yves CHENARD et al.  
Serial No. 273,669

translation of the French priority application is enclosed (Ex. A). The following discussion focuses on the grandparent application. Similar support is found in the French priority document because the grandparent application substantially corresponds to the French priority document.

A. Claims 71-148

Independent claims 71, 85, 102, 119, and 134 define the organotin component of the composition as a mono- or diorganotin compound wherein at least one atom bonded to tin is sulfur. The grandparent application, particularly page 1, lines 21-23; page 6, lines 12-24; Examples Nos. 3-4 & 7-11 at pages 8-15; Example No. 23 at pages 20-21; and filed claims 1 and 4 provides § 112 support.

The second component in the composition of these independent claims is defined as a mercapto alkanol ester of a monocarboxylic acid. Section 112 support is found in the grandparent application, particularly at page 3, line 5 to page 5, line 9; the examples, particularly Example Nos. 1, 2, 3, 4, 7-11, and 23; and filed claims 1-2 and 6-13.

The vinyl halide resin component and the stabilization of the vinyl halide resin against heat or light is disclosed in the grandparent application especially at page 1, lines 1-21; page 2, line 16 to page 3, line 4; page 5, lines 10-13; page 6, lines

Jean-Yves CHENARD et al.  
Serial No. 273,669

12-19; and the examples, which use a polyvinyl chloride resin composition.

Thus, independent claims 71, 85, 102, 119, and 134 clearly have § 112 support in the grandparent application. The dependent claims are, likewise, supported.

Claims 72, 86, 103, 120, and 135 are specifically disclosed at page 8, lines 14-16; page 12, lines 26-28; and page 14, lines 18-19. The specific mono- or diorganotin compounds in claims 78, 92, 109, 126, and 141 were used in at least Examples 3-9.

The specification at page 3, lines 5-17, discloses the formula in claims 79, 93, 110, 127, and 142. Claims 80-82, 94-96, 111-112, 128-130, and 143-145, which depend on and further define the formula in claims 79, 93, 110, 127, and 142, are likewise disclosed at page 3, lines 5-17.

The specific monocarboxylic acids in claims 83, 97, 113, 131, and 146 are disclosed at page 4, lines 3-6. The specific mercapto alkanol esters of a monocarboxylic acid of claims 84, 98, 114, 132, and 147 are disclosed in Example Nos. 1-6 and 10-11.

Finally, the weight limitation of claims 100 and 117 is disclosed at page 6, lines 1-4.

The attachment of a residue of a mercapto acid ester attached to tin in the organotin as in claims 76, 90, 107, 124, and 139 is disclosed particularly in Example 3 at pages 8-9.

Jean-Yves CHENARD et al.  
Serial No. 273,669

Although the Board concluded that the attachment of a residue of a mercaptan (claims 73, 87, 104, 121, and 136), a residue of a mercapto acid (claims 74, 88, 105, 122, and 137), a residue of a mercapto alcohol (claims 75, 89, 106, 123, and 138), and the residue of a mercapto alcohol ester (claims 77, 91, 108, 125, and 140) to the tin in the organotin is not literally disclosed in the grandparent application, Applicants contend that one skilled in the art would have been placed in possession of the invention of these claims by the disclosure of the grandparent application and French priority document. Once the grandparent application disclosed the bonding of sulfur to tin in the organotin and, particularly, the bonding of the residue of a mercapto acid ester to the tin, one skilled in the art would have realized that the residue of a mercaptan, a mercapto alcohol, a mercapto acid, or a mercapto alcohol ester could also be bonded to the tin. For example, see U.S. Patent No. 3,764,571 to Jennings at col. 4, lines 1-28, that shows the interchangeability of these substituents in an organotin. (Ex. I, Tab. 17).

Consequently, claims 71-148 find § 112 support in the grandparent application and are entitled to an effective U.S. filing date of at least as early as August 28, 1979. Moreover, since the U.S. grandparent application is substantially equivalent to the French priority application (Ex. A), claims 71-148 also find § 112 support in the French priority

Jean-Yves CHENARD et al.  
Serial No. 273,669

application. Thus, claims 71-148 are entitled to a § 119 priority date of August 29, 1978.

B. Claims 149-191

Applicants believe that claims 149-191 are likewise supported under § 112 in the grandparent application and the French priority application. These claims are similar to claims 71-148 except that a halogen instead of sulfur is bonded to the tin in the organotin.

To expedite prosecution, however, applicants have previously submitted the declarations of Messrs. Foure (Ex. B), Mendelsohn (Ex. C), Chenard (Ex. D), Rakita (Ex. E), and Larkin (Ex. F) documenting that prior to December 12, 1980 experiments were conducted in the United States on applicants' behalf in which mono- or diorganotin compounds wherein at least one atom bonded to tin is a halogen were used in combination with mercapto alkanol esters of a monocarboxylic acid. The Board at page 6 of its opinion did not dispute this showing. Thus, claims 149-191 are entitled to a date of invention prior to December 12, 1980.

LAW OFFICES

FINNEGAN, HENDERSON  
FARABOW, GARRETT  
& DUNNER  
1775 K STREET, N. W.  
WASHINGTON, D. C. 20006  
(202) 293-6650



Jean-Yves CHENARD et al.  
Serial No. 273,669

V. THE REJECTIONS IN THE BOARD'S  
DECISION DO NOT APPLY TO  
CLAIMS 71-191

A. Japanese '044 and '336

Japanese '044 and '336, which were relied upon by the Board, are not prior art with respect to claims 71-191. As discussed above, claims 71-148 are entitled to an effective U.S. filing date of at least as early as August 28, 1979 and a foreign priority date of August 29, 1978. Claims 149-191 have a date of invention of prior to December 12, 1980. The two Japanese patents, however, were not published until December 12, 1980 and January 12, 1981, respectively. Thus, these Japanese patents are not prior art against claims 71-191.

B. Kugele et al.

Likewise, the Kugele et al. patent was filed on February 26, 1981, subsequent to the priority date and effective U.S. filing date of claims 71-148 and the date of invention of claims 149-191. Furthermore, in Reexamination No. 000,583, the U.S. Court of Appeals for the Federal Circuit in a decision dated December 17, 1987 (Ex. G) invalidated all of the claims of the Kugele et al. patent. Thus, there is no longer any basis for the Examiner to assert that the Kugele et al. patent and the present application claim the same subject matter. Accordingly, the Kugele et al. patent does not provide any basis for the rejection of claims 71-191.

Jean-Yves CHENARD et al.  
Serial No. 273,669

C. Gough With Hechenbleikner

Claims 71-191 are patentable over Gough with Hechenbleikner. Gough discloses organotin borates and an organic thiol compound. The invention of claims 71-191 concerns a mono- or diorganotin compound wherein at least one atom bonded to tin is sulfur or a halogen. Gough does not concern such organotin compounds.

Hechenbleikner fails to cure this defect. Hechenbleikner discloses a mixture of a tin stabilizer and a non-tin-containing sulfur compound selected from a liquid polythiopolymercaptan and an alkylene glycol or polyethylene glycol derivative. There is no mention of organotin borates or the interchangeability of organotin borate and organotin sulfur or halogen compounds. Thus, nothing in Hechenbleikner would have led one skilled in the art to replace Gough's organotin borate stabilizer with an organotin sulfur stabilizer from Hechenbleikner.

Consequently, claims 71-191 are patentable over Gough with Hechenbleikner.

D. Hechenbleikner

Similarly, claims 71-191 are patentable over Hechenbleikner alone. Hechenbleikner does not teach or suggest the claimed mercapto alkanol ester of a monocarboxylic acid. Rather, for use with a tin stabilizer, Hechenbleikner discloses a non-tin-containing sulfur compound selected from a liquid

Jean-Yves CHENARD et al.  
Serial No. 273,669

polythiopolymercaptan and an alkylene glycol or polyethylene glycol derivative. Col. 1, lines 27-34; col. 2, line 68 to col. 3, line 61.

Hechenbleikner's non-tin-containing sulfur compounds are not the claimed mercapto alkanol ester of a monocarboxylic acid. Nor is there any teaching or suggestion of using the claimed mercapto alkanol ester of a monocarboxylic acid in place of these non-tin-containing sulfur compounds. Thus, Hechenbleikner neither anticipates nor renders obvious the claimed invention.

E. Wilson Alone or With Hechenbleikner

Wilson fails to anticipate the claimed invention of a (a) mono- or diorganotin compound wherein at least one tin atom bonded to tin is sulfur (claims 71-148) or a halogen (claims 149-191) and (b) a mercapto alkanol ester of a monocarboxylic acid. In contrast, Wilson discloses the combination of an organotin primary stabilizer with a secondary stabilizer that is a resinous polyester reaction product of a mercapto alcohol with a dicarboxylic acid. There is no mention of a monocarboxylic acid, as in the claimed invention. Therefore, Wilson fails to anticipate claims 71-191.

Similarly, the combination of Wilson and Hechenbleikner does not render obvious the claimed invention. Wilson, as noted, does not teach or suggest the claimed mercapto alkanol ester of a

Jean-Yves CHENARD et al.  
Serial No. 273,669

monocarboxylic acid because it discloses solely the reaction product of a mercapto alcohol with a dicarboxylic acid. Hechenbleikner, likewise, lacks such a teaching or suggestion since Hechenbleikner's non-tin-containing compounds do not encompass the claimed mercapto alkanol ester of a monocarboxylic acid. Consequently, claims 71-191 are patentable over Wilson alone or with Hechenbleikner.

F. Bresser et al.

U.S. Patent No. 4,576,984 to Bresser et al. is not prior art with respect to claims 71-191. Bresser et al., through a chain of applications resulted from an application filed in the United States on February 26, 1981, long after both the effective U.S. filing date of August 28, 1979 and the § 119 priority filing date of August 28, 1978 for claims 71-148 and the date of invention for claims 149-191. Thus, these claims cannot be rejected as anticipated by or obvious in view of Bresser et al.

If it is the Examiner's position that Bresser et al. claims the same or substantially the same invention as claims 71-191, then Bresser et al. is invalid. This is because at least claims 71-148 are clearly supported in the French priority application and French Patent No. 2,434,835, which issued on the French priority application, is § 102(b) prior art against Bresser et al. Thus, although Bresser et al. was initially allowed over the

Jean-Yves CHENARD et al.  
Serial No. 273,669

French patent, Bresser et al. should now be subject to reexamination and invalidation if the Examiner holds that Bresser et al.'s claims are not patentably distinct from the present claims (and the corresponding disclosure in the French patent).

VI. INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R. §§ 1.56 and 1.97-1.99, Applicants bring the following documents to the Examiner's attention that the Examiner may consider to be material to the examination of this application. These documents were cited in reexamination requests filed in Reexamination Nos. 1534 and 1535 involving U.S. Patent Nos. 4,062,881 and 4,120,845 to Kugele. A copy of the reexamination request (Ex. H) in Reexamination No. 1535<sup>2/</sup> is being provided to the Examiner along with copies<sup>3/</sup> of the following documents that are discussed in the reexamination request particularly at the cited pages.

<u>Document</u>	<u>Pages in Reexam. Request</u>	<u>Tab in Ex. I</u>
U.K. 1,286,925	19, 29-32	19
U.S. 3,609,120	20, 34-36, 45-48	18
U.S. 3,764,571	20, 36-42, 55-62	17

<sup>2/</sup> The documents cited in Reexamination No. 1535 are the same as those cited in Reexamination No. 1534. Thus, only a copy of the reexamination request in Reexamination No. 1535 is being provided.

<sup>3/</sup> Copies of these documents can be found at the cited tabs in the enclosed exhibit book (Ex. I) submitted with the reexamination request.

Jean-Yves CHENARD et al.  
Serial No. 273,669

U.S. 2,707,178	22, 50-55	22
U.S. 3,565,930 & 3,565,931	21, 63-66	6 & 7
Fr. 1,091,704	21, 48-50	20
U.S. 3,627,718	22, 55-66	21
U.S. 3,021,302	23	23
U.S. 3,769,263	23	27
U.S. 3,442,852	23	31
U.S. 3,478,071	24	24
U.S. 2,870,119 & 2,870,182	25	8 & 9
U.S. 2,809,956	25	25

Applicants reserve the right to contest the applicability of these documents as prior art with respect to the present application.

#### VII. CONCLUSION

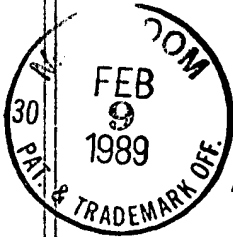
Applicants respectfully request that the Examiner examine and consider claims 71-191 to be patentable over the prior art.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER

By: Richard B. Racine  
Richard B. Racine  
Reg. No. 30,415

Dated: February 9, 1989



PATENT  
Attorney Docket No. MNTC-006-A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Rule 62 Application of )  
JEAN-YVES CHENARD et al. )  
Serial No.: 273,669 ) Group Art Unit: 153  
Filed: November 18, 1988 ) Examiner: V. Hoke  
For: IMPROVEMENT IN THE )  
STABILIZATION OF VINYL )  
HALIDE POLYMERS )

EXHIBITS TO  
PRELIMINARY AMENDMENT AND  
INFORMATION DISCLOSURE STATEMENT